and Canada, as an economic entomologist of wide knowledge and experience. His kindly and genial personality and his unfailing courtesy and fair-mindedness have made him justly popular among his colleagues.

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We extend to Mr. Gibson our hearty congratulations on his well-deserved promotion, and wish him every success in the new responsibilities that he has undertaken.

NOTES ON SOME COLEOPTERA TAKEN IN THE VICINITY OF DUNEDIN, FLORIDA, IN THE SPRING OF 1920, WITH DESCRIPTIONS OF NEW SPECIES.

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The work on my "Orthoptera of Northeastern America" delayed my trip to Florida in the autumn of 1919, and I did not reach Dunedin until Christmas day. After my arrival a severe illness prevented any collecting for six weeks or more, and led also to the abandonment of a contemplated trip to Marco and other points along the extreme southwestern coast of the State. The first collecting was done on February 14, and from then on until April 28, I was in the field almost every day. I had hoped that by staying two or three weeks later than usual I would find the full spring fauna emerging, and thus make amends in part for the time lost during the winter, but the season, as gauged by the blossoming of plants, was a fortnight or more late, so that in the main the species taken or observed were those of previous years prior to April 10. However, from time to time I ran across a species new or rare to the State, and these, with three or four believed to be hitherto unknown, are treated on the following pages.

Bembidium picipes Kirby. A single specimen was captured Feb. 23 on a strip of bare muck along the margin of a pond near Dunedin. The first record for Florida. It was described from British America, is frequent in Indiana and ranges, according to Hayward,[2] from New England and Lake Superior, to Missouri, Kansas and Texas.

Lebia rhodopus Schwarz. A half dozen specimens have been taken about Dunedin, where it occurs from January to April on low ground vegetation; one is also at hand from Ft. Myers, Fla. The only other Florida record is that of the type from Tampa. Horn[3] made it an absolute synonym of *L. viridis* Say and not a variety as stated by Leng.[4] A careful study of the Florida specimens, as well as of a score or more taken in Indiana, substantiates my

1. See Can. Ent., April, 1917, 137.
2. Trans. Amer. Ent. Soc., XXIV, 1897, 83.
3. Trans. Amer. Ent. Soc., X, 1882, 130.
4. Bull. Amer. Mus. Nat. Hist., XXXIV, 1915, 585.

opinion[5] that *rhodopus* is a distinct species, the differences pointed out by Schwarz[6] holding good without variation throughout the series.

Lebia collaris. Dej. A single specimen was beaten from a bunch of Spanish moss in high, dry upland oak woods on April 20. It is 5.2 mm. in length, and agrees in every particular with Dejean's original description in which the length is given as 2½ lines, and breadth as 1¼ lines. The eyes are very prominent, as stated by him, the side margins of the thorax very broad, recurved and of nearly equal width throughout, while the outer joints of the antennæ are very dark brown. Attention is called to these points simply for comparison with examples of the following species which I had had in my collection for several years under the name of *collaris*, their determination having been made from Horn's "Revision of the Species of Lebia"[7] without access to Dejean's descriptions.

Lebia nigripennis Dej. Horn in his "Revision" makes this a synonym of *L. collaris*. From the text I judge that he did this without seeing Dejean's type of either species, as he says: Both Dejean's and Chaudoir's descriptions "do not seem to indicate any difference between *nigripennis* and *collaris* except in size and the colour of the head and thorax." These characters are ordinarily good, but in the present instance the colour of the head and thorax is seen to vary in our series." He then gives the length of *collaris* (including *nigripennis*) as 5 mm., whereas Dejean gives the dimensions of *nigripennis* as length 1¾ lines, breadth ¾ line, or 3.5 and 1.2 mm.

In the four specimens at hand, three from Dunedin and one from Sanford, Fla., the size is exactly as given by Dejean for *nigripennis;* the eyes are distinctly less prominent than in the *collaris* specimen above mentioned; the side margins of thorax are less wide and very evidently narrower toward the front angles; and the outer joints of antennæ are pale reddish-brown in all. Leaving aside the colour of the head, which is variable, these characters are, in my opinion, sufficient, when taken in connection with the much smaller size, to restore the name of *nigripennis*, as I believe that these small specimens represent the species which Dejean had before him in naming that form. In no one species of *Lebia* does the size vary as much as between these two forms, and Dr. Horn apparently ignored this difference in size when he combined the two and placed the length at 5 mm. The *L. collaris*, of Horn, is said by Leng to occur in the Middle and Southern States, and has been recorded from several stations in Florida.

Lebia fuscata Dej. This species is sometimes attracted by light, two specimens having been taken at porch light on March 15.

Aphelogenia vittata Fab. One example, April 19. This seems to be a rare beetle not only in Indiana but also in Florida. It is not mentioned by Schwarz, and is recorded only from Jacksonville and Lakeland by Leng.[8] All of my specimens from both States were taken by sweeping vegetation in low, damp localities.

5. Col. Ind., 1910, 145.
6. Proc. Amer. Phil. Soc., XVII, 1878, 354.
7. Trans. Amer. Ent. Soc., IV, 1872, 136.
8. Bull. Amer. Mus. Nat. Hist. XXXIV, 1915, 586.

Selenophorus ovalis Dej. My first specimen of this Carabid was found running across the sidewalk near the Club House Annex on March 16. Two others were taken at the same place on March 28. It is usually regarded as rare, is known only from Georgia and Florida, and resembles the more common *S. fossulatus* Dej., but is smaller and with the rows of dorsal punctures much less prominen..

Canthydrus addendus, sp. nov.

Elongate-oval, glabrous, shining. Head and thorax reddish-brown; the latter with front margin clouded with fuscous; elytra dark chocolate brown; antennæ, legs and under surface pale reddish-yellow. Head finely alutaceous, impunctate, much broader and more convex than in *C. gibbulus* (Aubé), the interocular space nearly twice as wide as there; clypeus much more broadly rounded; eyes larger, less convex, more coarsely facetted. Thorax with a few very fine punctures on the sides and along the front margin. Elytra oval, very convex at middle, the apical third strongly tapering; surface distinctly alutaceous, more coarsely and much more sparsely punctate than in *gibbulus*. Prosternal process behind the front coxæ narrow, spatulate, both it and median plates of meso- and metasterna very finely and sparsely punctate; hind margin of median metasternal plate subtruncate, its outer apical angles produced. Last ventral segment of both sexes compressed and subcarinate at middle. Length 3–3.2 mm.

Described from 20 specimens taken April 1 from a mass of water weeds in a shallow pond one mile northeast of Dunedin. Allied to *gibbulus* but distinctly larger and more convex. Besides the differences pointed out the median sternal plates of *gibbulus* are very coarsely and densely punctate, and the hind margin of the metasternal one is widely and deeply marginate. Cotypes of *addendus* are in the American Museum of Natural History and the collection of H. C. Fall.

Hydrochus minimus Blatch.[9] A second specimen of this minute and very distinct species was taken March 24 from a submerged board in the same pond as the preceding.

Coccinella 9-notata Hbst. Although this well-known species or its varieties are said to range over the entire United States, I can find no previous record of its occurrence in Florida. In a collection of beetles, mostly taken at porch light in July and sent to me from Dunedin, I found a single specimen.

Aulonium parallelopipedum Say. One specimen March 15 from beneath bark of dead water oak. Not before recorded from Florida but mentioned in the Schwarz MS. list [10] from Tallahassee and Crescent City.

Botrodus estriatus Casey. One specimen, Feb. 11. Beaten from dead limb of red bay at Skinner's hammock. Described from Texas.[11] No published record from Florida, but Schwarz (Ms.) has taken it at Crescent City.

Conotelus punctatus Schæffer. This Nitidulid was described[12] from Lake Worth, Fla. I have taken it at Little River, Utopia and Dunedin by sweeping vegetation in low grounds. The elytra are brown with fine but distinct elongate punctures in evident rows.

9. Described in Bull. Amer. Mus. Nat. Hist., XLI, 1919, p. 317, from a unique.
10. See footnote, p. 419, Can. Ent., Dec., 1918.
11. Ann. N. Y. Acad. Sci., V, 1890, 320.
12. Journ. N. Y. Ent. Soc., XIX, 1911, 116.

Tenebroides floridanus Schæffer. A single specimen of this recently described[13] Ostomid is in my collection from Moore Haven, where it was taken March 2 from beneath the bark of a dead custard apple shrub. Schaeffer's type in the U. S. Nat. Museum was from Key West.

Limnichus nitidulus Lec. Four specimens have been taken about Dunedin where it occurs beneath bark of dead bay trees and on foliage of low plants. Described from Georgia. Recorded by Schwarz as very rare at Enterprise, Florida.

Agriotes insanus Cand. One specimen, March 20, beaten from oak. No. species of *Agriotes* has hitherto been reported from Florida. The range of *A. insanus* is given by Leconte[14] as, "Massachusetts to Illinois, Kansas and Texas." It is frequent in Indiana where it occurs on the greater ragweed, *Ambrosia trifida* L.

Agriotes oblongicollis Melsh. One specimen was taken March 21 by beating the foliage of the wax myrtle, *Myrica cerifera* L. Leconte[15] gives its range as "Georgia to Canada and Illinois." Although Leconte and Horn in characterizing the genus *Agriotes*[16] state that the front is "not margined behind the labrum," it is distinctly so margined in *A. oblongicollis*, as mentioned by Melsheimer in his original description[17].

Drapetes geminatus Say. Hitherto known from Florida only from Enterprise, where Schwarz found it "very rare." A single specimen was taken April 14 by sweeping ferns in Skinner's hammock.

Agrilus concinnus Horn. This large and handsome Agrilid was described[18] from "Georgia and Florida," without definite locality. A single example was swept from low huckleberry bushes on April 11.

Tytthonyx flavicollis, sp. nov.

Elongate-oblong, depressed. Elytra and legs black, strongly shining, finely pubescent; head, except front of occiput, thorax, scutellum, prosternum and side pieces of meso- and metasterna bright reddish-yellow, antennæ and under surface (except as noted) piceous black. Antennæ broad, very strongly serrate, second joint half the length of third, which is slightly shorter than the fourth. Thorax transversely elliptical, larger than in *erythrocephalus*, its margins thickened and angles all rounded; disc almost smooth and with a deep, entire median furrow. Elytra at base not wider than thorax, reaching second abdominal segment, their tips separately rounded; the disk of each with three distinct but feeble costæ, the intervals strongly transversely rugose. Last ventral with a small subacute median notch. Length 4.5 mm.

One male swept April 18 from the foliage of a low huckleberry. Differs from both *T. erythrocephalus* Fabr. and *ruficollis* Schæff. in colour, in sculpture of elytra and in the form of emargination of the last ventral.

Telephorus bilineatus Say. One specimen from beneath a chunk, March 31. I was surprised to find that this common northern Lampyrid was

13. Journ. N. Y. Ent. Soc., XXVI, 1918, 199.
14. Trans. Amer. Ent. Soc., XII, 1884, 15.
15. Loc. cited, p. 16.
16. Class. Col. N. Amer., 1883, 186.
17. Proc. Acad. Nat. Sci. Phil., II, 1845, 218.
18. Trans. Amer. Ent. Soc., XVIII, 1891, 310.

not heretofore recorded from Florida. Leconte gives its range[19] as "Atlantic region to Kansas."

Odontæus filicornis Say. A male of this uncommon Scarabid was taken at porch light on March 15. Horn gives its range[20] as "Middle and Central States," but Schwarz records one specimen from Enterprise and, in his Mss. notes, another from Tampa.

Ecyrus exiguus Lec. One specimen beaten from oak, March 22. The first record for Florida, its range being given by Leng and Hamilton[21] as Ohio, Georgia and Kansas.

Mecas femoralis Hald. One specimen taken by sweeping, April 20. Schwarz lists it as rare at Fort Capron and Crescent City.

Tetraopes tetraophthalmus Forst. Two specimens taken on milkweed July 15 and sent to me. This is another common northern species of wide range which has not before been recorded from Florida, though known from South Carolina, Louisiana and Mexico.

Cryptocephalus aulicus Hald. One specimen taken by sweeping vegetation along a sandy roadway. A rare species, resembling *Griburius larvatus* Newm. in colour and markings. Described from Georgia and known only from that State and Florida. Recorded by Castle and Laurent from Enterprise and noted in the Schwarz Mss. from St. Augustine.

Graphops varians Lec. Two specimens beaten from oak, March 19 and April 10. The first record from Florida. Leconte gives its range[22] as Illinois, Texas and Kansas.

Phyllotreta liebecki Schæffer. This is the species recorded by me[23] under the name *Phyllotreta robusta* Lec. as common at Sanford along the borders of cypress swamps. Schaeffer's types were from Enterprise, and he states[24] that it is closely allied to *robusta* but in that species the "fifth antennal joint is prolonged at apex, and the last ventral has a very deeply impressed median line."

Synchroa punctata Newm. A rare species in Florida. Schwarz lists one specimen from Haulover and I took one, Feb. 27, and another, April 19, from beneath the bark of a dead red bay tree, *Persea borbonia* L.

Canifa pusilla Hald. One specimen July 15, at porch light. Described from South Carolina, frequent in Indiana, but not before known from Florida.

Tachygonus minutus, sp. nov.

Short, broadly oval. Black, strongly shining; legs and antennæ wholly testaceous. Beak reddish-brown, strongly shining, devoid of punctures; eyes large, almost contiguous; occiput very minutely and sparsely punctured. Thorax bell-shaped, coarsely and densely punctate on sides and with a large rhomboidal smooth space at middle, a tuft of white hairs near each hind angle and a thinner aggregation of similar hairs on sides. Elytra with double rows of coarse, deep punctures, each of which gives rise to a yellowish inclined seta; umbones promi-

19. Trans. Amer. Ent. Soc., IX, 1881, 54.
20. Trans. Amer. Ent. Soc., III, 1871, 50.
21. Trans. Amer. Ent. Soc., XXIII, 1896, 137.
22. Trans. Amer Ent. Soc., XII, 1884, 26.
23. Can. Ent., XLVI, 1914, 142.
24. Journ. N. Y. Ent. Soc., XXVII, 339.

nent; intervals very narrow, the alternate ones feebly costate; a small divided and divergent sutural tuft of white hairs on basal third. Hind legs not much longer than the middle ones, armed on inner side with three or four minute teeth. Sides of meso- and metasterna coarsely punctate and clothed with white hairs. Length 1.3 mm.

Described from a single specimen taken April 19 by sweeping ferns in Skinner's hammock. Allied to *T. centralis* Lec., described from Colorado, but smaller, with head more finely punctate and sculpture of elytra very different.

Derolomus bicolor Lec. One specimen, April 23, from the leaves of a thistle on Hog Island. Known heretofore only from Enterprise, New Smyrna and Capron on or near the east coast of Florida.

Lixus leptosomus[25] Blatch. Two examples swept, April 11, from low herbage along the railway embankment north of Dunedin. The unique type from Sanford, Fla., was the only specimen hitherto known.

Barinus elusus, sp. nov.

Elongate, subparallel, convex. Black, shining; legs and antennæ reddish-brown; thorax with a broad stripe of transversely placed white scales on each side; elytra with the second intervals covered their full length with similar scales, bases of third, fourth and sixth intervals, side pieces of meso- and metasterna and sides of last three ventral segments similarly clothed. Beak stout, strongly curved, about three-fourths the length of thorax, very finely and sparsely punctate above, more coarsely on sides of basal half. Head finely alutaceous, finely and sparsely punctate. First joint of funicle two-thirds the length of the rest united. Thorax subcylindrical, one-fourth longer than wide, rather finely punctate, the intervals feebly alutaceous and equal in size to the punctures. Elytra scarcely wider at base and nearly twice as long as thorax, sides parallel to apical fourth, then strongly converging to the separately rounded tips; striæ narrow, deep; intervals flat, feebly alutaceous, each with a single row of rather fine, shallow, irregularly placed punctures. Under surface coarsely and densely punctate, the last three ventral segments more sparsely so. Length 3 mm.

Two specimens taken March 30, April 19 by sweeping along a roadway through Skinner's hammock. Allied to *cribricollis* Lec., but distinct in the more slender form, arrangement of white scales, longer thorax, alutaceous surface, etc.

Cylindrocopturus nanulus Lec. Five specimens beaten April 26 from the foliage of *Ampelopsis* in low, moist grounds. Known from Florida heretofore only from Enterprise.

25. Can. Ent., XLVI, 1914, 249.

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